

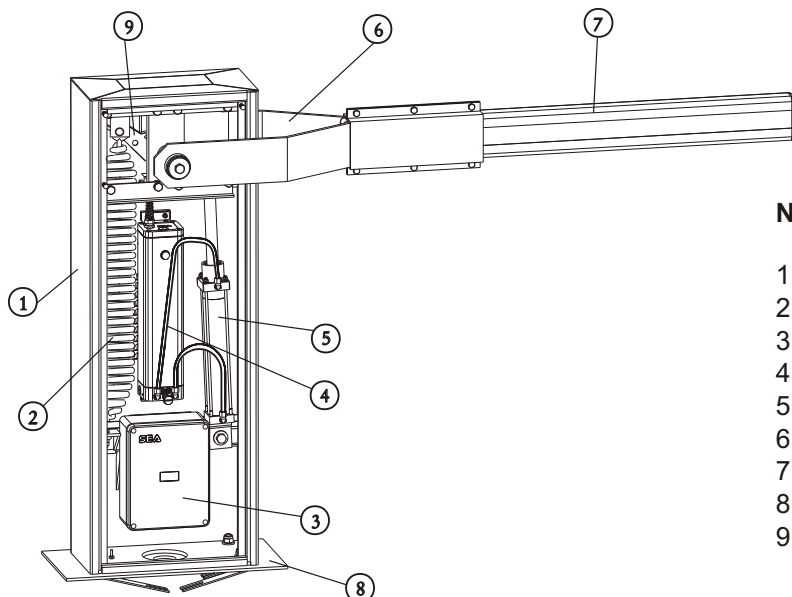
SEA s.r.l. is glad to congratulate and thank you for choosing our product. Your choice will allow you to understand how our factory, according to studies, research and above all the needs of our clients, wants to gather technology, reliability and safety together keeping in mind use and installation easiness.

General characteristics

Vela Industrial is an hydraulic automation for big carriage entrances (5, 6, 7 and 7.5 m) The places for fitting are multiple; Vela Industrial is ideal for camp entrances, hospitals, yards, private roads, port and airport entrances, public parkings with half-intensive working cycles. It is provided with an anti-crush device that ensures a strength not higher than 15 Kg on the beam so to ensure people and things against accidents. An accurate slowing down system guarantees the total control of the momentum strength. The manual release makes the beam independent from the hydraulic unit so to allow the manual closing and opening.

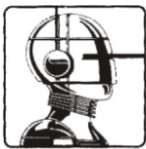
The automation is constituted by:

- 1 Vela Industrial case which protects all mechanic and electric devices from atmospheric agents. It is made by a steel sheet which is processed with cathaphoresis and epossidic dust painting. On request SEA provides the inox steel case.
- 2 Balancing spring which is available in 4 different sizes so to accomplish with the four beam length (See spring tab.)
- 3 GATE 1 electronic control unit; an advanced device which allows for the programming and control of all working and safety systems.
- 4 Hydraulic unit with manual release for the manual opening of the beam in case of damages and two screws for couple adjustment.
- 5 Double effect hydraulic piston which gives movement to the beam by the beam balance assembly.
- 6 Yoke which holds the beam; completely steel built, processed like the case.
- 7 Beam in extruded aluminium, available in four sizes: 5 and 7,5 m.
- 8 Mounting plate built with steel sheet coated with zinc.
- 9 Beam balance assembly out of galvanized steel.



Name of the most important parts:

- 1 Vela Industrial Series case
- 2 Balancing spring
- 3 GATE 1 Electronic Control Unit
- 4 Hydraulic pump unit
- 5 Piston
- 6 Yoke
- 7 Aluminium beam
- 8 Vela Industrial mounting plate
- 9 Beam balance assembly



Technical data

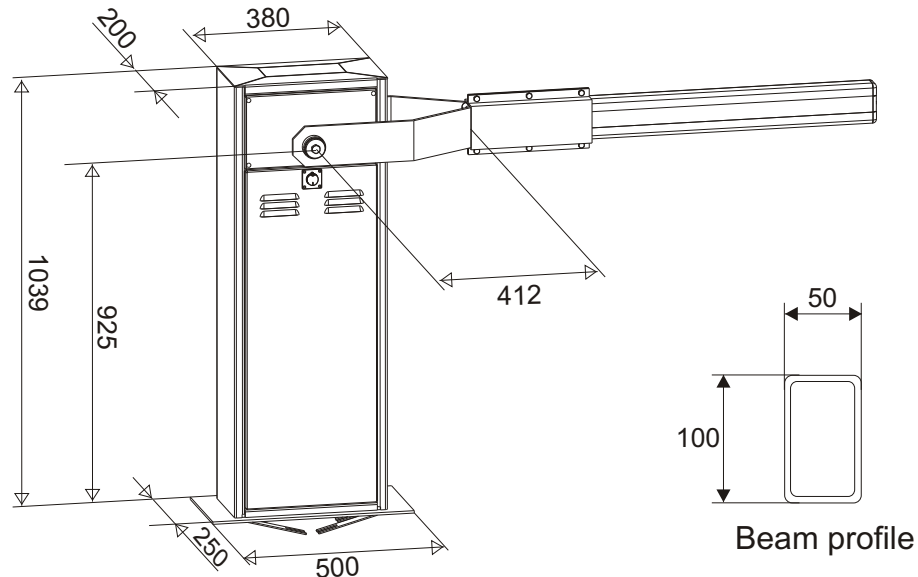
Voltage supply:	230 Vac \pm 5% - 50/60 Hz
Power absorption:	230W
Opening time:	8-12 sec
Thermoprotec.:	130°C
Oil quantity:	1,5 lt
Max. Beam length:	7,5 mt
Protection degree:	Ip55
Starting capacitor:	12,5 uF
Absorbed current:	1,1 A
Motor power:	230W
Motor revolutions:	1400 RPM/min.
Operating temperature:	-20°C/55°C
Weight:	73 Kg
Thermal cut out:	130°C
Pump rating:	2 l./min.
Working logics:	Autom. Semi-autom. Dead-man
Manual release:	Yes
Use frequency:	75%

Rectangular central beam			
Barrier Length L (m)	Beam Length L1 (m)	Spring (mm)	Spring code
5	4,55	10,5	66400005
6	5,55	11	66400010
7	6,55	12	66400015
7,5	7,05	12B	66400020

Rectangular side beam		
Beam Length	Spring	Cod. kit beam
5	10,5 mm	11905100
6	11 mm	11905105
7	12 mm	11905110

Rectangular side beam with skirt			
Beam Length	Spring	Cod. kit beam	Type of skirt
5	11 mm	11905100	4,5 mt
6	12 mm	11905105	5,5 mt
7	12,5 mm	11905110	6,5 mt

Dimensions:



FITTING INSTRUCTIONS

1) Position of spring and piston

Right hand closing barrier

Left hand closing barrier

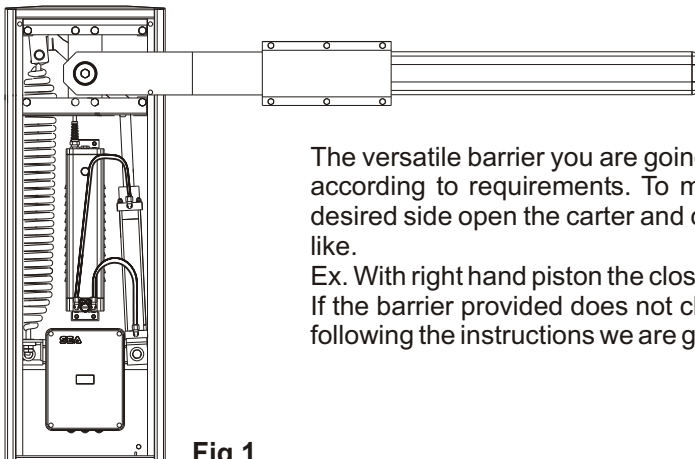


Fig.1

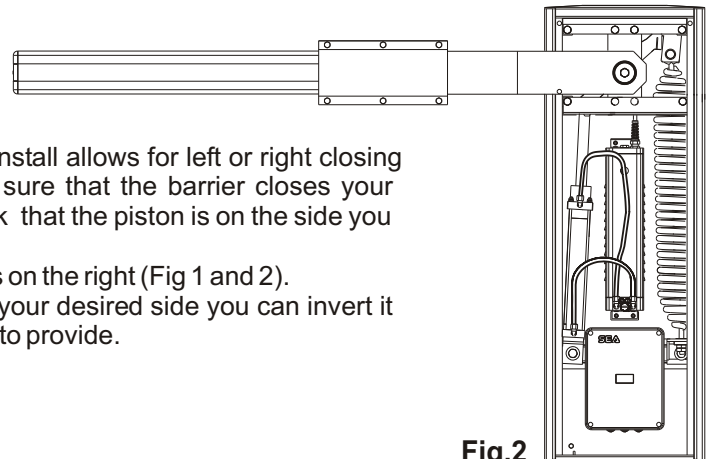
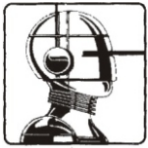


Fig.2

The versatile barrier you are going to install allows for left or right closing according to requirements. To make sure that the barrier closes your desired side open the carter and check that the piston is on the side you like.

Ex. With right hand piston the closing is on the right (Fig 1 and 2).
If the barrier provided does not close your desired side you can invert it following the instructions we are going to provide.



N.B.: The production operator is delivered as shown in Fig.1 (Closing on the right hand side).

Example:

Necessity of right closing (fig1)

Barrier with left closing (fig, 2)

Before installing the spring check the choice of the barrier, if right or left hand side.

If the barrier is with closing on the left hand side exchange the piston from the right to the left hand side as shown in Fig.4 and 5.

N.B.: Before executing this operation release the hydraulic unit as shown in Fig. 14.

N.B.: Before exchanging the piston loosen about a middle turn the two links of the connection pipes between the hydraulic unit and hydraulic piston to facilitate the inversion (only on the unit) as in Fig.4.

Spring tensioning bolt

Spring support

Piston fixing screws

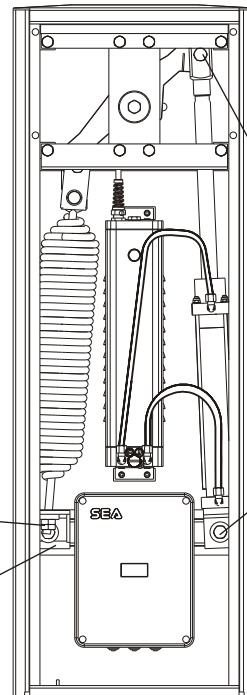


Fig. 3

Once the piston has been exchanged lock the fixing screws of the piston and the previously loosened connection pipes on the hydraulic unit again (Fig.4).

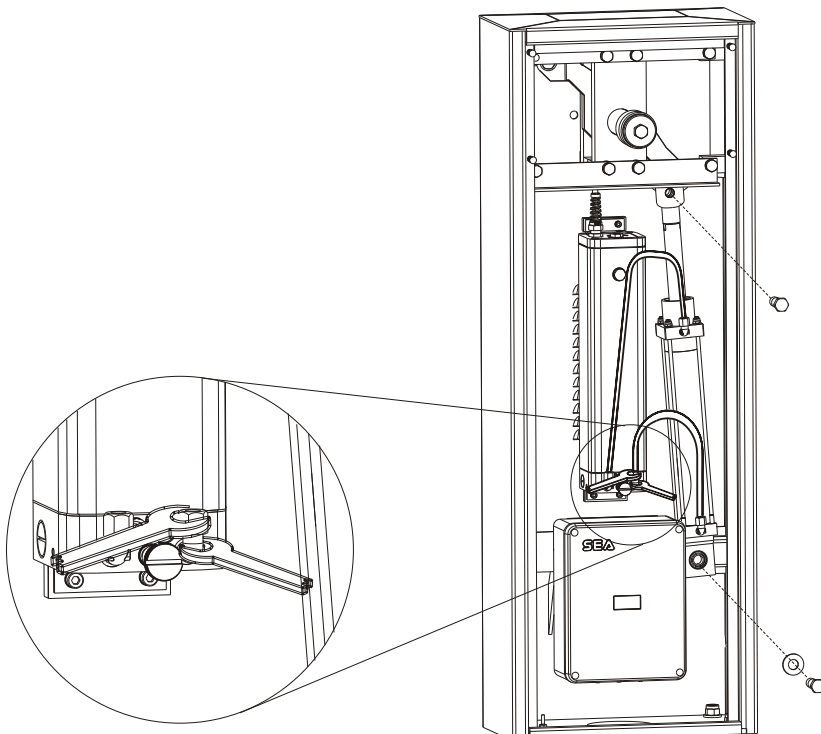


Fig. 4

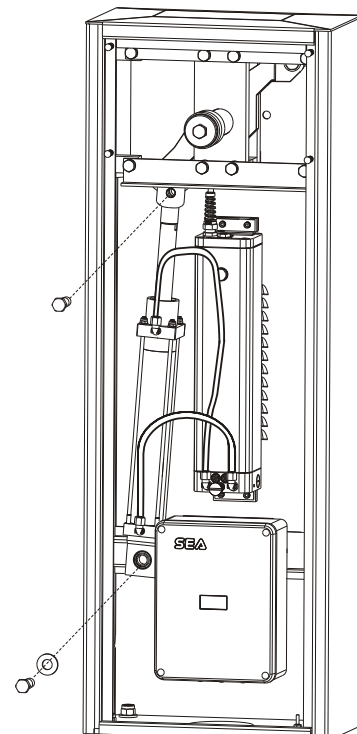
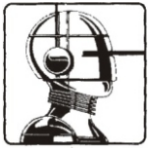


Fig. 5



2) Mounting of the spring

Insert the spring in to the carter as shown in Fig.6.

Lubrication
with grease
during mounting

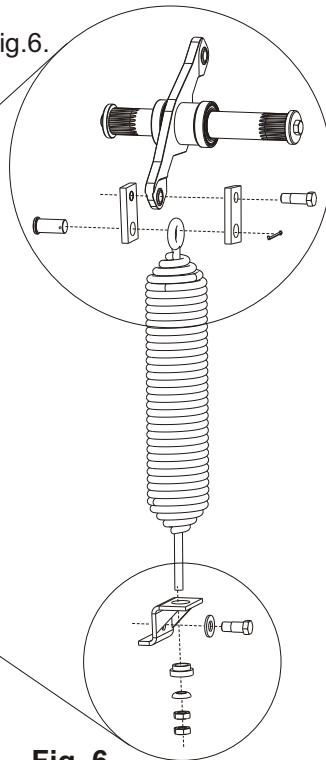


Fig. 6

3) Mounting plate fixing

- Dig a hole 800x600x400
- Widen the foundation plate clamps at 60° (Fig. 7)
- Fill the hole with R425 concrete and place the foundation plate as in Fig. 7.
- Level the plate with care.

*The plate has got a central hole for electric wiring so before filling the hole with concrete put an electric wire sheathing on the hole.

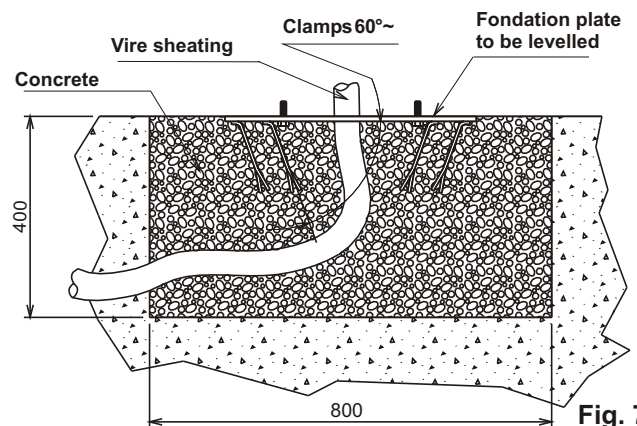


Fig. 7

4) Fixing the column on the foundation plate

- Place the column so that the holes at the base correspond to the screws that emerge from the foundation plate.
- Make sure that the wire sheathing is fixed on the big central hole at the base of the column.
- Tighten the column to the foundation plate screwing the provided nuts and bolts with care.

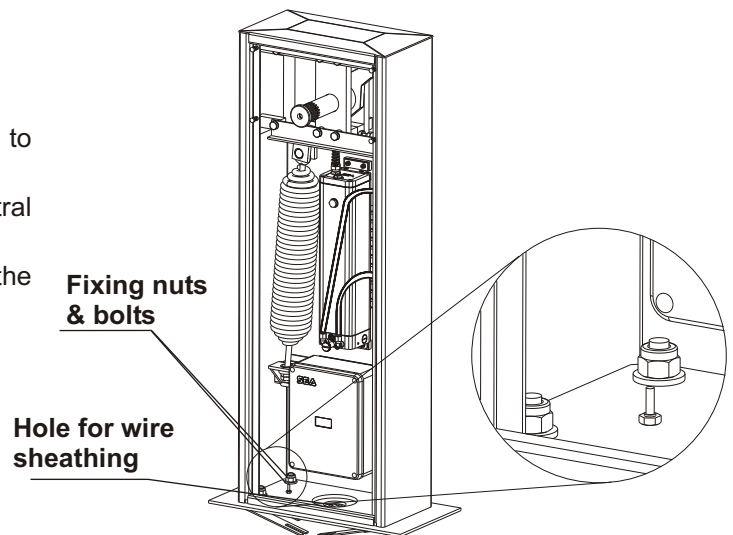
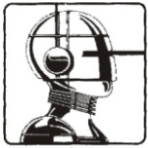


Fig. 8



5) Mounting of the central beam (Fig. 9)

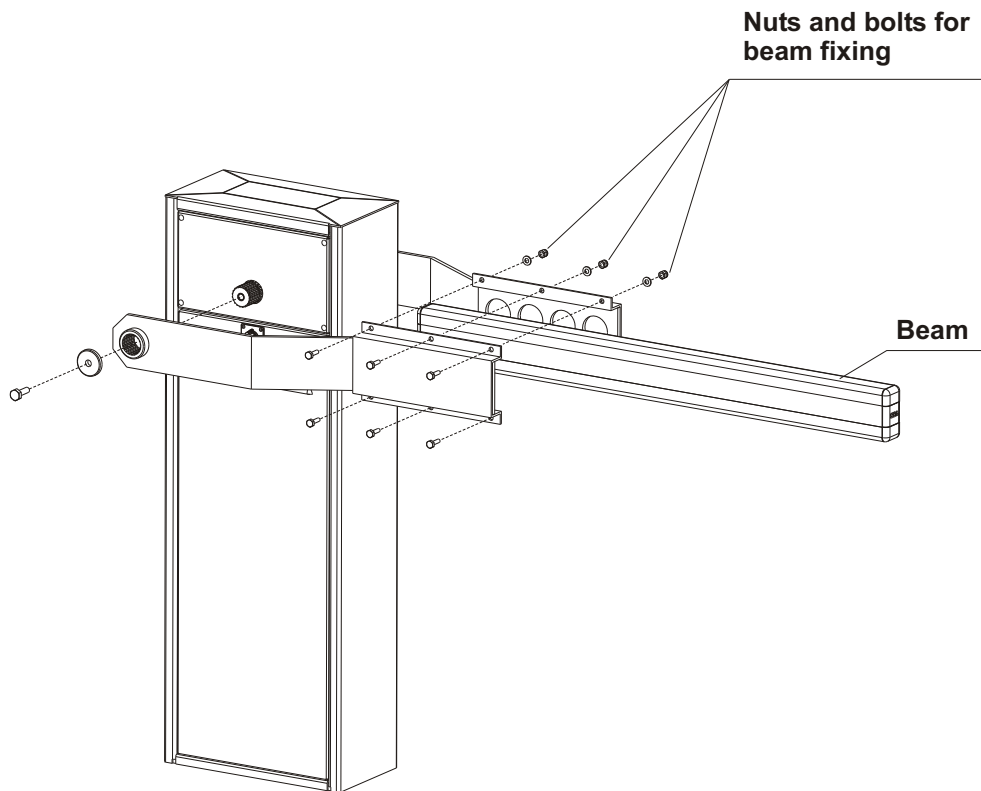


Fig. 9

6) Mounting of the side beam (Fig. 10)

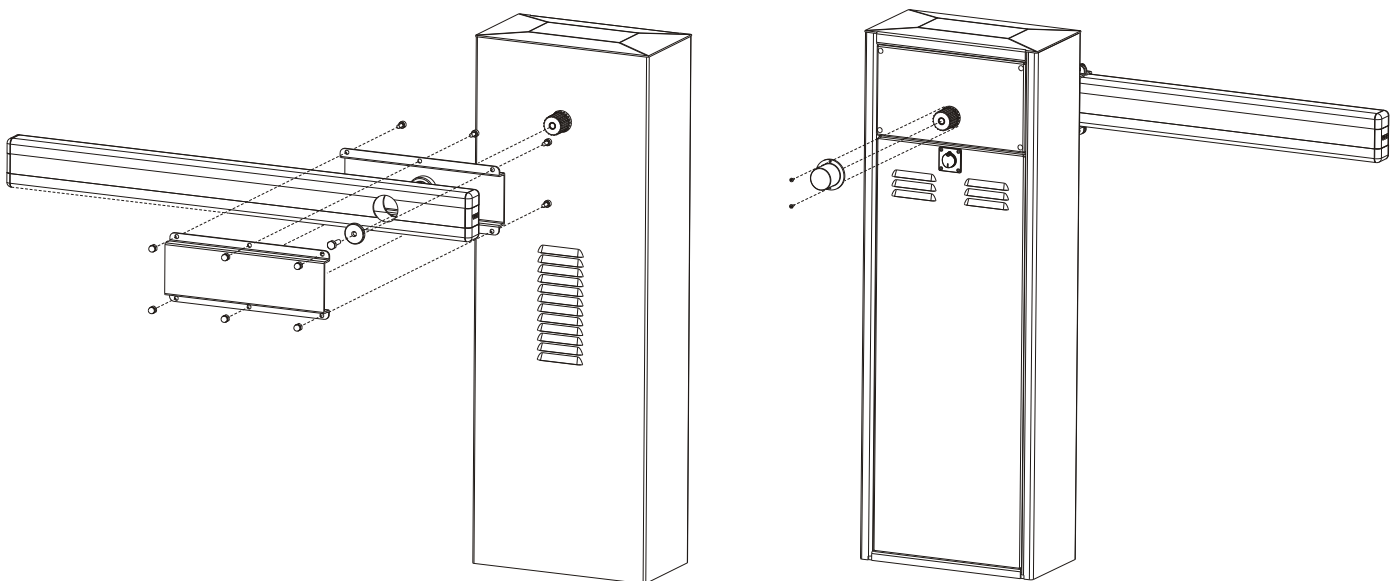
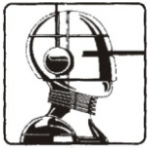


Fig. 10



7) Mounting of the skirt on the beam

N.B.: The skirt can be installed only on side beams.

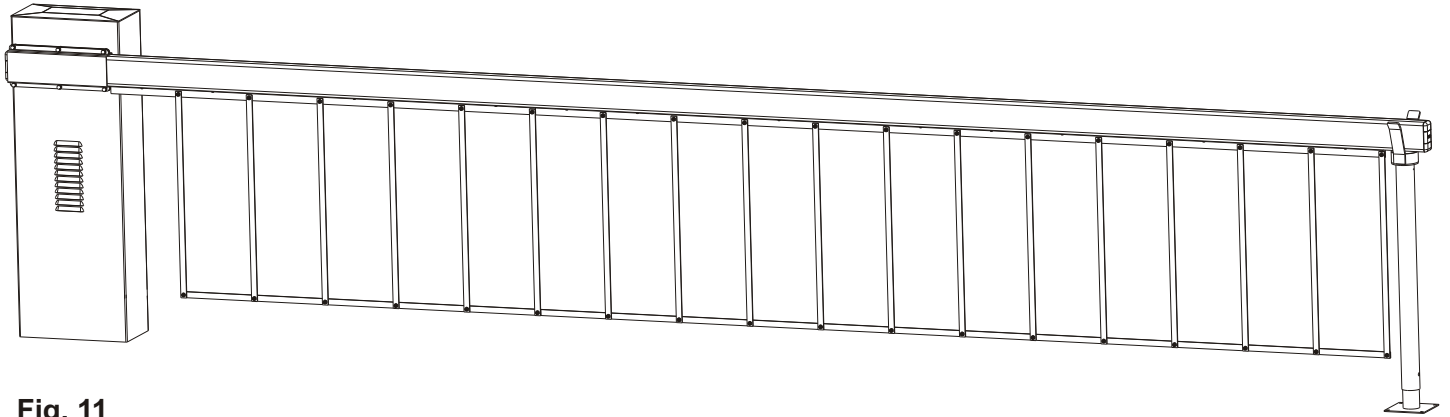


Fig. 11

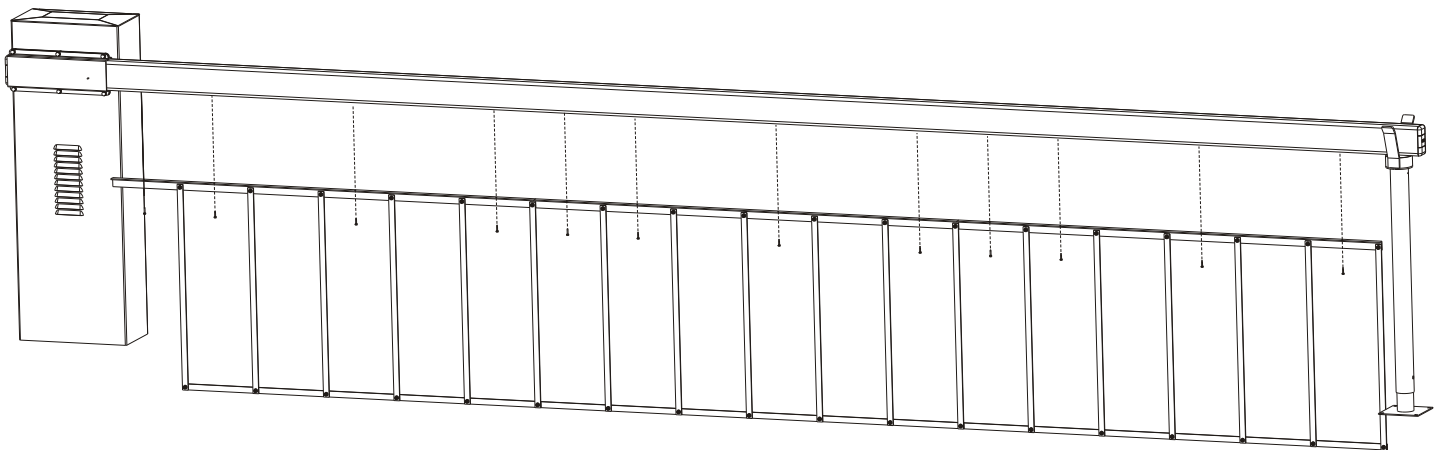
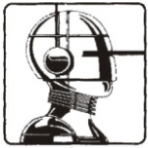


Fig. 12



8) Balancing the spring

- Turn the manual release valve anti-clockwise to release the hydraulic locking so that the beam can be opened and closed manually.
- Place the beam at approx. 45° and execute the balancing with the nuts of Fig. 13
A correct balancing of the beam is obtained with the beam on 45° and the operator unlocked.
- Tight or untight the spring adjusting bolt locknut so that the spring reaches a balance point with the beam at 45° (Fig.13).
- After balancing fix the spring adjusting bolt locknut with the bolt and block the hydraulic unit.

N.B.: Before putting in function replace the closing cap with the delivered breather cap

9) 12) Release system

To release operate as follows:

- Open the door with the delivered special key
- Turn about 90° into anti-clockwise direction the release screw placed on the hydraulic unit.
- Move the beam with the hand

To re-lock operate as follows:

- Turn about 90° into clockwise direction the release screw placed on the hydraulic unit.
- Close the door

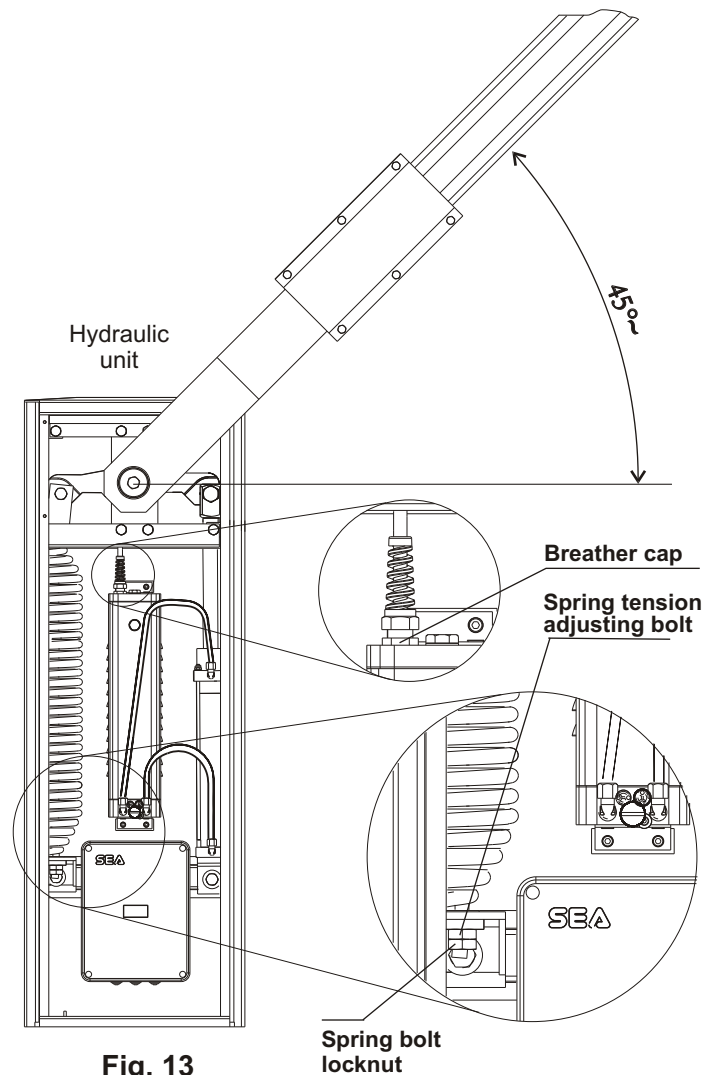


Fig. 13

Pressure adjusting valves

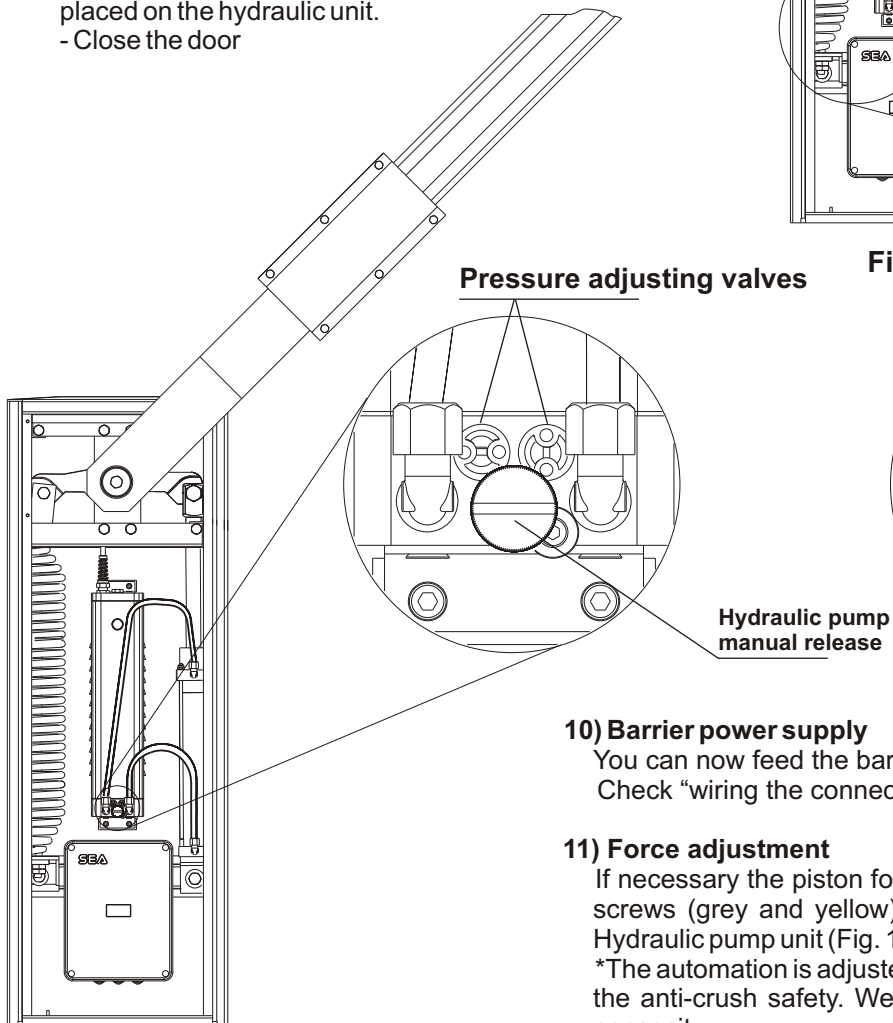
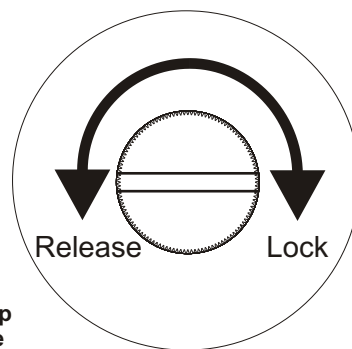


Fig. 14



10) Barrier power supply

You can now feed the barrier with 220V50/60 Hz power supply.
Check "wiring the connectors" (**paragraph 14**) for more details.

11) Force adjustment

If necessary the piston force can be adjusted by the two adjusting screws (grey and yellow) placed on the front lower place of the Hydraulic pump unit (Fig. 14).

*The automation is adjusted at 15 Kg force ex works so to guarantee the anti-crush safety. We recommend to adjust it only in case of necessity.

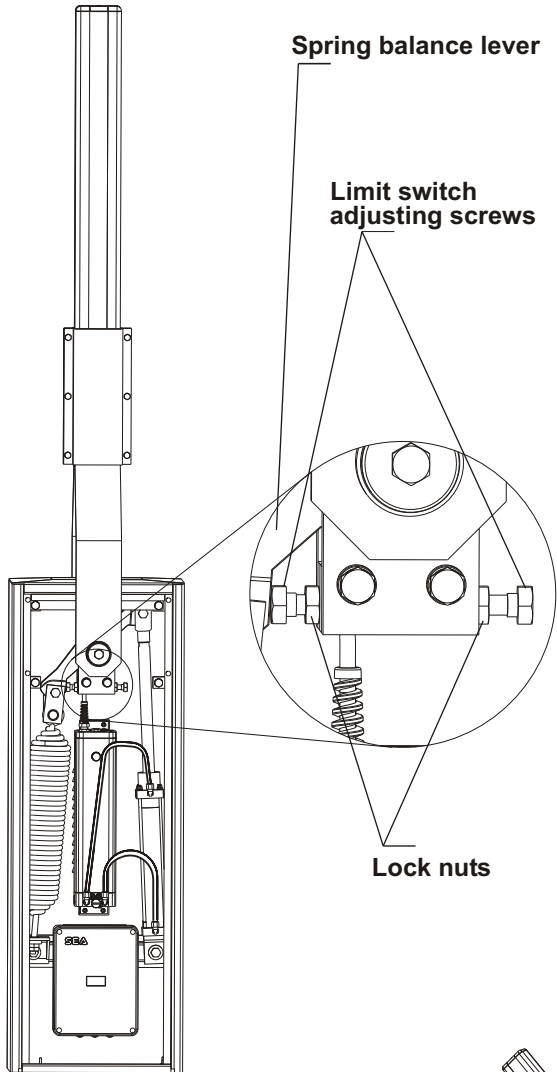
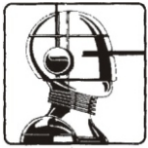


Fig.15

12) Levelling the beam

This manoeuvre must be done only if at the end stroke the beam is not perfectly horizontal in closing or vertical in opening.

- Unlock the hydraulic unit by the release screw so that the beam opens and closes manually.
- Release the end stroke screws unscrewing the lock nuts on the beam balance assembly (Fig.15).
- Screw or unscrew the end stroke screws so that the beam stays perfectly vertical in opening and perfectly horizontal in closing (Fig.15).
- After levelling, fix the end stroke by tightening the lock nuts on the beam balance assembly and block the hydraulic unit.

13) Standard installation

In Fig. 16 you find the wiring necessary for the barrier installation.

The two numbers placed nearby the electrical cables show their quantity and section.

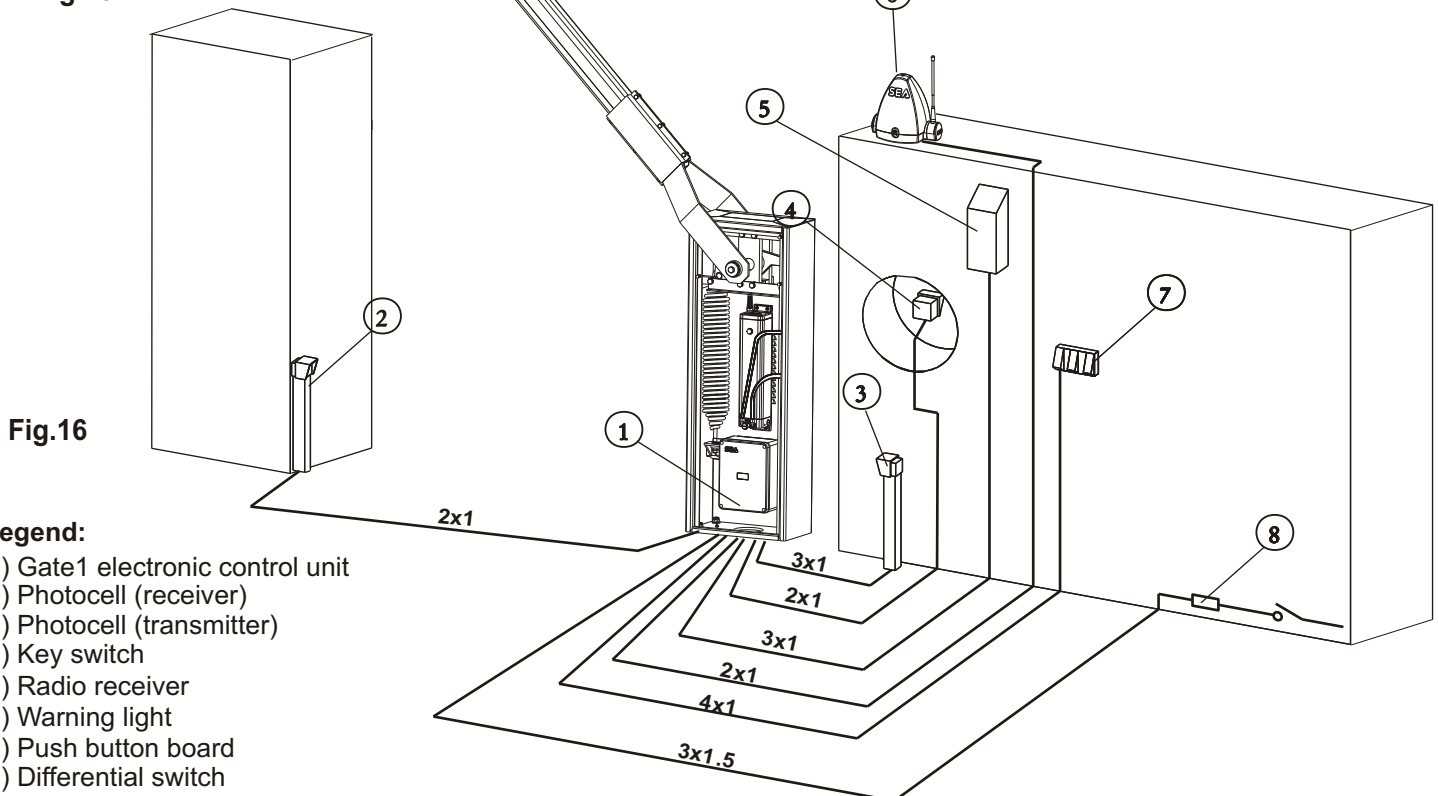
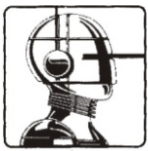


Fig.16

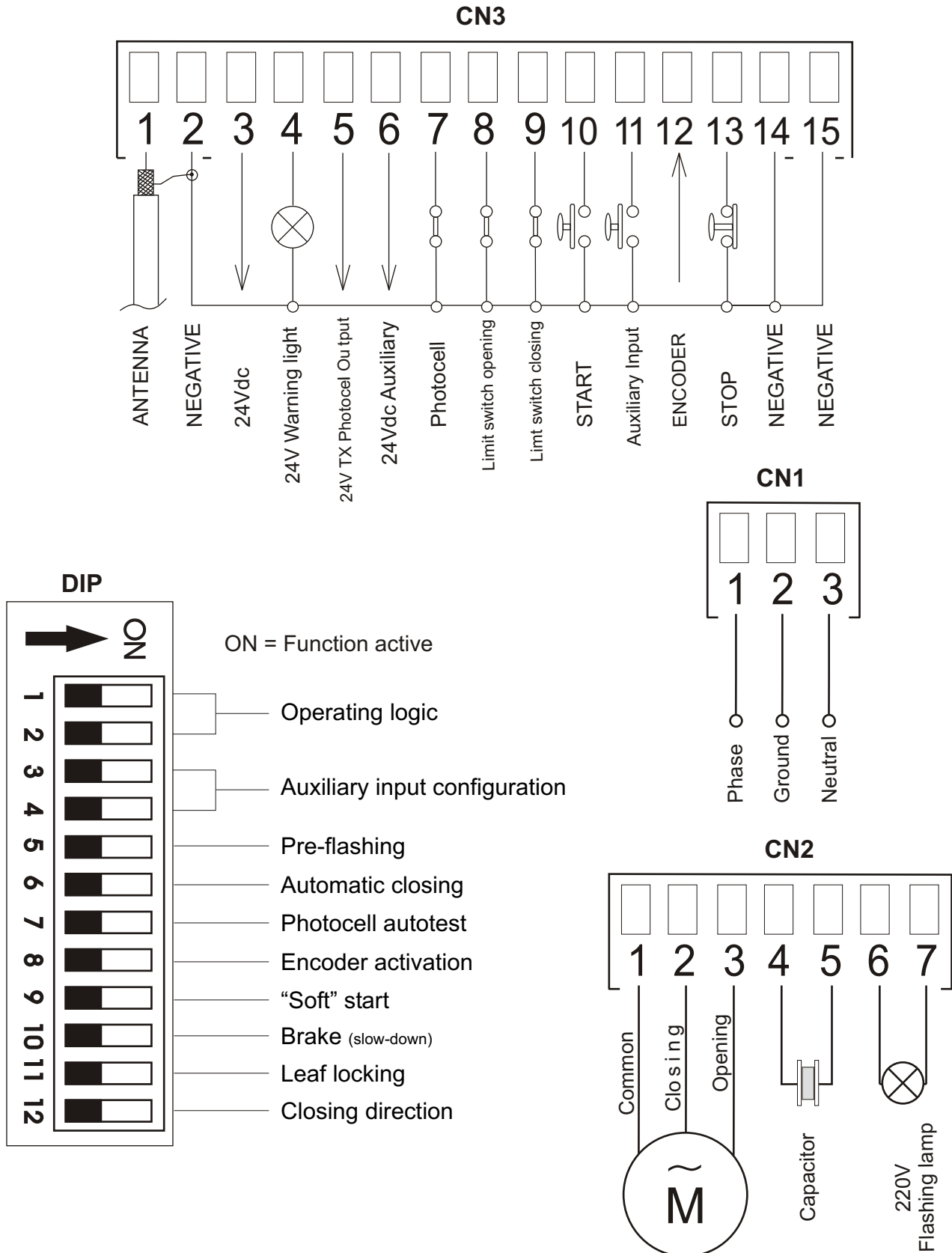
Legend:

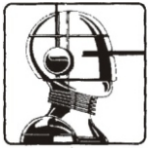
- 1) Gate1 electronic control unit
- 2) Photocell (receiver)
- 3) Photocell (transmitter)
- 4) Key switch
- 5) Radio receiver
- 6) Warning light
- 7) Push button board
- 8) Differential switch



14) Connectors connection for Gate1 control unit

The electronic control unit is located inside the box. The panel controls all the device functions. It is technologically advanced and you will choose the logic function that suits you most.





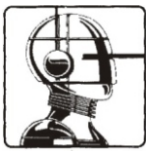
PERIODICAL MAINTENANCE

Check the functionality of the release	Annually
Lubricate the bearing of the balance	Annually
Check the efficiency of the spring	Annually
Check the beam fixing screws and the balance and the casing	Annually
Check the integrity of the connexion cables	Annually
Check and eventually adjust the value of intervention of the anti-crash (By Pass)	Annually
Replace the hydraulic oil with the oil recommended by the producer	4 years

All above mentioned operations must be executed exclusively by authorized installers.

INITIAL CHECK AND PUTTING IN SERVICE

After having completed all necessary operations, for the correct installation of the product VELA INDUSTRIAL, described in the present manual and after having valued all resting risks which could arise in whatever installation **is necessary to test the automation to guarantee the max. security** and in particular way to guarantee the respect of what foreseen by the law and the normatives in force. In particular the test must be executed following the **EN12445** ruel which establishes the testing methods for the testing of the gate operators respecting the established limits by the **EN 12453 law**.



ACCESSORIES FOR VELA INDUSTRIAL



KEY SWITCH



GHOST 40 - GHOST 50



SKIRT (ONLY ON SIDE BEAM)



WARNING LAMP



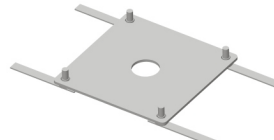
FIXED FORK
SUPPORT



ADJUSTABLE
FORK SUPPORT



FLEXIBLE
FORK SUPPORT



COUNTER PLATE
FOR FORK SUPPORT

WARNING

The electric installation and the working logic choice must be done according to the existing laws. A 16A - 0,030A differential switch must be incorporated into the source of the operators main electrical supply and the entire system properly earth bonded. Keep the power cables (motors, power supply) and the control ones (push buttons, photocells, radio etc.) separated. You can use two different sheaths to avoid interference.

Note: Use "cable clips" and/or "duct/box pipes" fitting close to the control panel box so to protect the interconnection cables against pulling efforts.

N.B.: The barrier is delivered without inversion unit in case of obstacles. For the respect of the laws EN 12453 and EN 12445 we recommend to add external units to it.

INTENDED USE

The VELA INDUSTRIAL has been designed to be solely used to automate barriers.

SPARE PARTS

To obtain spare parts contact:

SEA s.r.l. ZONA Ind.le, 64020 S.ATTO Teramo Italia.

SAFETY AND ENVIRONMENTAL COMPATIBILITY

We recommend not to spoil the environment with product and circuit packing material.

CONFORMITY REQUIREMENTS

The VELA IND. operator conforms to the following:

98/37/CE (Machine directive)

89/336/CEE (Electromagnetic compatibility directive)

73/23/CEE (Low tension directive)

STORAGE

STORAGE TEMPERATURES			
T _{min}	T _{max}	Humidity _{min}	Humidity _{max}
-40°C	+80°C	5% no condensation	90% no condensation

When being transported this product must be properly packaged and handled with care.

MAINTENANCE AND OUT OF SERVICE

The decommission and maintenance of this unit must only be carried out by specialised and authorised personnel.

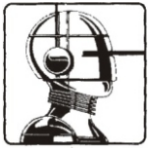
LIMIT OF GUARANTEE

VELA INDUSTRIAL is guaranteed for a period of 24 months. The guarantee period starts from the date stamp printed on the unit. The guarantee will be void if the unit has been incorrectly installed, not used for the purpose intended, tampered with or modified in any way.

The validity of this guarantee only extends to the original purchaser of the unit.

NOTE: THE MANUFACTURER CAN NOT BE DEEMED RESPONSIBLE FOR ANY DAMAGE OR INJURY CAUSED BY IMPROPER USE OF THIS PRODUCT.

SEA reserves the right to modify or adjust the products and information provided in this manual with no obligation to notice.



TERMS OF SALE

EFFICACY OF THE FOLLOWING TERMS OF SALE: The following general terms of sale shall be applied to all orders sent to SEA srl. All sales made by SEA to all customers are made under the prescription of this terms of sales which are integral part of the sale contract and cancel and substitute all opposed clauses or specific negotiations present in the order or in other documents received from the buyer.

GENERAL NOTICE The gate automation systems must be assembled exclusively with SEA components, unless specific agreements apply. Non-compliance with the applicable safety standards (European Standards EN 12453 EN12445 and others) and with good installation practice releases SEA from any responsibilities. SEA shall not be held responsible for any failure to execute a correct and safe installation under the above mentioned standards.

1) PROPOSED ORDER The proposed order shall be accepted only prior SEA approval of it. By signing the proposed order, the Buyer shall be bound to enter a purchase agreement, according to the specifications stated in the proposed order and always under those Terms of sale. On the other hand, failure to notify the Buyer of said approval must not be construed as automatic acceptance on the part of SEA.

2) PERIOD OF THE OFFER The offer proposed by SEA or by its branch sales department shall be valid for 30 solar days, unless otherwise notified.

3) PRICING The prices in the proposed order are quoted from the Price List which is valid on the date the order was issued. The discounts granted by the branch sales department of SEA shall apply only prior to acceptance on the part of SEA. The prices are for merchandise delivered ex-works from the SEA establishment in Teramo, not including VAT and special packaging. SEA reserves the right to change at any time this price list, providing timely notice to the sales network.

4) PAYMENTS The accepted forms of payment are each time notified or approved by SEA. The interest rate on delay in payment shall be 1.5% every month but anyway shall not be higher than the max. interest rate legally permitted.

5) DELIVERY Delivery shall take place, approximately and not peremptorily, within 30 working days from the date of receipt of the order, unless otherwise notified. Transport of the goods sold shall be at Buyer's cost and risk. SEA shall not bear the costs of delivery giving the goods to the carrier, as chosen either by SEA or by the Buyer. Any loss and/or damage of the goods during transport, are at Buyer's cost.

6) COMPLAINTS Any complaints and/or claims shall be sent to SEA within 8 solar days from receipt of the goods, proved by adequate supporting documents as to their truthfulness.

7) SUPPLY The concerning order will be accepted by SEA without any engagement and subordinately to the possibility to get it's supplies of raw material which is necessary for the production; Eventual completely or partially unsuccessful executions cannot be reason for complains or reservations for damage. SEA supply is strictly limited to the goods of its manufacturing, not including assembly, installation and testing. SEA, therefore, disclaims any responsibility for damage deriving, also to third parties, from noncompliance of safety standards and good practice during installation and use of the purchased products.

8) WARRANTY.

SILVER: The mechanical components of the operators belonging to this line are guaranteed for 24 months from the date of manufacturing written on the operator.

GOLD: The mechanical components of the operators belonging to this line are guaranteed for 36 months from the date of manufacturing written on the operator.

PLATINUM: The mechanical components of the operators belonging to this line are guaranteed for 36 months from the date of manufacturing written on the operator. The base warranty (36 months) will be extended for further 24 months (up to a total of 60 months) when it is acquired the certificate of warranty which will be filled in and sent to SEA s.r.l. within 30 days from the purchase date. The electronic devices and the systems of command are guaranteed for 24 months from the date of manufacturing. In case of defective product, SEA undertakes to replace free of charge or to repair the goods provided that they are returned to SEA repair centre.

The definition of warranty status is by unquestionable assessment of SEA. The replaced parts shall remain propriety of SEA. Binding upon the parties, the material held in warranty by the Buyer, must be sent back to SEA repair centre with fees prepaid, and shall be dispatched by SEA with carriage forward. The warranty shall not cover any required labour activities. The recognized defects, whatever their nature, shall not produce any responsibility and/or damage claim on the part of the Buyer against SEA. The guarantee is in no case recognized if changes are made to the goods, or in the case of improper use, or in the case of tampering or improper installation, or if the product label of the manufacturer with the registered SEA trademark n° 804888 has been removed. Furthermore, the warranty shall not apply if SEA products are partly or completely coupled with non-original mechanical and/or electronic components, and in particular, without a specific relevant authorization, and if the Buyer is not making regular payments. The warranty shall not cover damage caused by transport, expendable material, faults due to non-conformity with performance specifications of the products shown in the price list. No indemnification is granted during repairing and/or replacing of the goods in warranty. SEA disclaims any responsibility for damage to objects and persons deriving from non-compliance with safety standards, installation instructions or use of sold goods. The repairs of products in warranty and out of warranty is accepted only if the procedure of SEA are fully respected by the customer.

9) RESERVED DOMAIN A clause of reserved domain applies to the sold goods; SEA shall decide autonomously whether to make use of it or not, whereby the Buyer acquires the property of the goods only after full payment of the invoice.

10) COMPETENT COURT OF LAW In case of disputes arising from the application of the agreement, the competent court of law is the tribunal of Teramo. The official language for the interpretation of the catalogue, the manuals, the terms of sale and any other is the italian language. SEA reserves the faculty to make technical changes to improve its own products, which are not in this price list at any moment and without notice.

SEA declines any responsibility due to possible mistakes contained inside the present price list caused by printing and/or copying. The present price list cancels and substitutes the previous ones. The Buyer, according to the law No. 196/2003 (privacy code) consents to put his personal data, deriving from the present contract, in SEA archives and electronic files, and he also gives his consent to their treatment for commercial and administrative purposes.

Industrial ownership rights: with the purchase, the buyer accepts in full the present Terms of Sale and recognizes that SEA has the exclusive legal ownership of the registered SEA International trademark n° 804888 which is attached on each products label, and/or on manuals, packaging and/or in any other documentation, and he will commit himself to use it in its marketing and/or installation activity in a way which does not reduce the value of these rights; he won't also remove, replace or modify the trademark or any other particularity from the products. Any kind of replication or use of SEA brand is forbidden as well as of any change of sings-brands on the products, unless preventive and expressed authorization by SEA.